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Source Code Escrow: An Exercise in Futility?

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I. INTRODUCTION

One of the fastest growing sectors of the U.S. economy is the software industry. Fueled by the incredible successes of "dot.com" public offerings and capital raising efforts, new Internet companies are launched and innovative products are introduced on a daily basis. Because the software development industry is labor intensive, the start-up software company is often of the garage or basement variety. Such start-up software companies often consist of a small number of skilled programmers who generate software applications and form a business through which to market their endeavors.

The vast majority of all start-ups fail as the skill set necessary to create a valuable software application may not lend itself to the successful management of a company producing and marketing that application. Application-specific software is frequently expensive to obtain, and companies often purchase computer systems and networks based on the availability of such application-specific software. As a result, purchasers of software from start-up software companies have sought protection in the event the start-up goes bankrupt, out of business, is purchased by a competitor, ceases to generate or support a software product, or otherwise fails to live up to license and support agreements. Protection from such events has resulted in the emergence of source code escrow agent companies.

There are two types of computer software code. The "object code," or executable code, is a form of binary machine code that a computer uses to run a program, but that is not easily or readily understandable to computer programmers.[1] The other form of software code is the "source code," which is the computer program as written by the programmer, and that can be understood by a computer programmer familiar with the computer

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1. *See* Whatis.com, *Object Code*, *at* http://www.whatis.com. *See also* AIKINS, MACAULAY & THORVALDSON, FALL 1996 NEWSLETTER REPORT, *Source Code Escrow*, *at* http://www.aikins.com/newsletter/fall96/8.htm. Additionally, some software is encrypted such that it is indecipherable without reference to an encryption key. *See* Whatis.com, *Encryption*, *at* http://www.whatis.com; Whatis.com, *Decryption*, *at* http://www.whatis.com.

programming language used.[2] The proprietary source code is generally regarded as the "crown jewel" of a software company's assets, and, for confidentiality and competitive reasons, a computer company will often not want to make its source code available to another person or company.[3] However, if a software company goes out of business, the cost of hiring a company to recreate an application-specific program from scratch for purposes of support or updates could be astronomical, if even possible in the desired time frame.[4]

As a result, a software customer may insist that there be a mechanism by which a copy of the source code can be obtained. The copy would be used to maintain the customer's system and obtain support and update services from other programmers in the event that the software company that created the product is no longer able to provide these services.

Enter the source code escrow agency industry:

[A]n escrow is a written instrument, which by its terms imports a legal

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2. *See* Whatis.com, *Source Code, at* http://www.whatis.com. "The source code describes in great detail the logic flow of a software program, and often includes the programmer's narrative explanation of the various steps in the program." AIKINS, MACAULAY & THORVALDSON, *supra* note 1.

3. Eric S. Freibrun, *Source Code Escrow Agreements—Balancing the Interests of Users and Vendors, at* http://www.cl.ais.net/lawmsf/articl15.htm. "Software developers consider the source code to be their most valuable trade secret. With the source code, a competitor could create a competing work without incurring all of the development costs of the original developer. Source code is the lifeblood of the software development business." Mark Grossman, *Mark Grossman's Computer Law Tip of the Week, SourceFile LLC, at* http://www.sourcefile.com/pressroom/m_grossman.html. One commentator has described the reasons for withholding the source code from customers as follows:

> One risk is that the supplier may lose track of who has which variant of which base version. He may later be accused of supplying a poor product or poor services, and lose reputation, and therefore business. Another risk is that a customer, or an employee or contractor of a customer, may expropriate (some might say 'steal') the source code, and use it in defiance of the supplier's copyright, or disguise it and sell it, or a variant of it, as their own product.

Roger Clarke, *When Your Software Supplier Lets You Down . . . The Case For Inspection of Software Escrow Deposits, at* http://www.anu.edu.au/people/Roger.Clarke/SOS/PaperEscrow.html. Additionally, many developers do not want to supply the source code because they do not want their customers to be able to self-maintain the software as that would eliminate the need for the developer's maintenance services.

4. *See id.*

> In principle it is possible to maintain a product which was developed using high-level procedural code, using the executable [source] code—if enough very clever people can be found and paid for to decompile large quantities of machine code (a mixture of art and science), and to understand and modify the resulting code without the benefit of comments, meaningful labels, or meaningful datanames. For a crucial small program, such an undertaking is feasible; but for the hundreds of thousands of lines that make up a complex commercial application, it isn't.

Id.

> obligation, deposited by the grantor, promisor, or obligor, or his agent, with a stranger or third person, who is not a party to the instrument, to be kept by the depositary until the performance of a condition or the happening of a certain event and then to be delivered over to take effect.[5]

Source code escrow agency companies advertise in technology trade journals and on the Internet, playing to the fears of businesses relying on unique or customized software applications.[6] Escrow agents suggest a practical solution to software fears and offer to hold software source code until an "event of release," such as the developer's bankruptcy or failure to comply with a material provision of the license agreement. Upon an event of release, the source code and related materials are released to the developer's customers. Source code escrow agents occasionally offer state-of-the-art security facilities, underground storage vaults, and auditing services to verify and provide inventory accounts of stored source code.

The protection a company acquires when depositing source code with escrow agents is surprisingly scant, and the standards escrow agents are held to are significantly lower and have fewer remedies in the event of a breach than the standards to which other escrow agents (e.g., banks or law firms) are held. This Article questions the utility of source code escrow agency services and suggests that, if such software escrow services are to be enlisted, software developers should insist on greater standards and protections than those typically offered by the software escrow industry.

II. SOURCE CODE ESCROW: IS IT REALLY NECESSARY?

Source code escrow represents a balancing of risks between software purchasers and developers. Software purchasers demand protection from the risk of bankruptcy, insolvency, default, or failure of software product developers. Conversely, software developers are unwilling to bear the risk of infringement[7] by customers, contractors, and employees. Although the source

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5. 30A C.J.S. *Escrows* § 2 (1992).

6. "[M]ost organisations [sic] are reliant on at least some software for which they do not hold source code." Clarke, *supra* note 3. One commentator estimates that approximately "80% of all Fortune 1,000 [companies] have at least one software package on deposit with an escrow agent." Gary H. Anthes, *The Dangers Behind Software Escrow*, COMPUTERWORLD (Dec. 21, 1998), *available at* http://www.computerworld.com/cwi/story/0,1199,NAV47_STO33324,00.html (quoting Tom Morehouse, President of SourceFile LLC). The prevalence of source code escrows in the United States may not be as significant in other parts of the world. *See, e.g.*, Fiona Mackay, *Shepherd & Wedderburn, WS, UK*, THE SCOTSMAN, Jan. 12, 1998, (on file with the Marquette University Intellectual Property Law Review) (noting that "escrow services are a well-kept secret in the IT industry, with few firms taking advantage of the protection they offer.").

7. While the object code is capable of being recreated and "pirated," the source code offers

code escrow business has been embraced by purchasers and developers of software products, it is not clear whether source code escrow is necessary or even particularly useful. The utility of source code escrow is highly questionable when one considers: (a) the short life of software and related computer systems; (b) learning curve issues; (c) the infrequency of escrow releases; (d) the failure rate of escrowed software; (e) the move to "open source" applications; (f) industry standardization concerns; (g) adequacy of intellectual property protection under U.S. bankruptcy law; (h) recalcitrant vendor risk; and (i) escrow agent viability.

A. The Short Life of Software and Related Computer Systems

When considering the value of a source code escrow service, the threshold question must be whether, given the facts and circumstances of a software purchasing company's business, source code escrow is actually necessary. The evolution of computer and software products is remarkably rapid, and such products' "shelf life" tends to be extremely short. Consequently, it is likely that any escrowed software will become obsolete or replaced by an updated version long before the escrowed product is ever released from escrow. Consumers purchase computer products with the expectation that those products will cease to be state-of-the-art before long, and budget for upgrades and replacements accordingly. Software purchasers need to carefully weigh the potential benefits of escrow protection against the relatively low probability that the source code will need to be accessed during the software product's life-cycle.

B. The Inability of Programmers to Quickly Get Up to Speed: Learning Curve Issues

Even if escrowed source code is released to the software purchaser upon a release event, the release may not provide the purchaser with the desired benefit. "[A] great many users neither know about nor care about such technical matters, and wouldn't know what to do with the source code even if they had it."[8] The recipient of the escrowed source code will still need to locate programmers who understand the code and can acclimate themselves in a sufficiently rapid time frame to be able to make whatever changes and upgrades are necessary. Even with access to the source code, the learning

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much more opportunity for abuse, as the holder would be able to understand and modify the code and/or incorporate it into competitive application products. "The object code is virtually impossible to change, update, or correct without the source code, which is the human readable version of the program." RUDER, WARE & MICHLER, *Computer Software Protection*, *at* http://www.ruder.com/articles/2.htm. *See also* Clarke, *supra* note 3.

8. Clarke, *supra* note 3.

curve for a complicated software application is steep and may result in costs comparable to purchasing a whole new system or application. One commentator believes

> [I]n some cases escrow will simply not be practical. The software may comprise millions of lines of code. The time taken by a programmer to become sufficiently familiar with the code in order to use it to maintain and develop the software may, in terms of cost for the licensee, outweigh the economies of simply acquiring a new package.[9]

C. The Infrequency of Escrow Releases

Statistics maintained by escrow companies suggest that very few releases from escrow will occur. For example, one company cites a paltry 0.5% release rate, indicating that it releases just one out of every two hundred deposits.[10] The unlikelihood of an event of release should make a software purchaser think twice before imposing costly escrow obligations on the seller (which ultimately would translate to a higher price of the seller's products) or agreeing to pay a premium for utilization of such a service.[11] Then again, the benefit achieved by 0.5% of escrow beneficiaries may legitimize the expenses incurred by the other 99.5%. Source code escrow beneficiaries need to analyze the cost imposed for escrow service compared to the improbability of an event of release of the escrowed product—similar to the cost/benefit analysis undertaken in determining whether to purchase an insurance policy.

D. The Failure Rate: Loss of Software by an Escrow Agent

The services provided by a source code escrow agency are far from perfect. Largely because of unscrupulous vendor practices, but also due to the fragility and deterioration of various forms of magnetic storage media (such as disks or tapes) over time, escrow agents maintain notable failure rates of

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9. Paul A. Barnett, *Escrow Arrangements for Source Code—Are They Worth the Candle?*, Chapman Tripp, *at* http://www.chapmantripp.co.nz/publish/escrow.htm.

10. *See* Anthes, *supra* note 6 (citing DSI Technology Escrow Services, Inc.'s sales and marketing Vice President, John Boruvka). However, DSI Technology Escrow Service's web page cites an even lower release percentage. "Escrow releases are rare. DSI, with more than 15,000 clients, releases about 18 a year." DSI Technology Escrow Services, Inc., *Resources—For Attorneys; How a Technology Escrow Agreement Should Work, at* http://www.dsiescrow.com/resource/escrowk.html. Assuming only one escrow deposit per client, this would translate to a mere 0.12% release rate.

11. However, some escrow agents have suggested that offering to escrow source code may be a valuable marketing contrivance for vendors. "[Developers] also gain a competitive edge by using escrow as a value-added benefit when marketing their technology." Guard-IT Corp., *Escrow Services: Protect the Developer's Proprietary Assets and their Licensee's Investment, at* http://www.guard-it.com/Services.html.

source code released from their custody. Thus, some beneficiaries of a source code escrow agency agreement will simply never receive the protection for which they bargained.[12]

Escrow agents boast state-of-the-art storage facilities (often underground and sometimes in remote locales)[13] and storage in the best containers available. Despite these claims, the items placed into storage remain at risk to natural disasters, fires, floods, theft, and other casualties that may limit the utility of the escrow and increase the price charged by the escrow agency. To the extent the escrow agent is compelled to insure against various casualty risks, the cost of escrow is increased. Consequently, one may query whether the escrow beneficiary might be better off purchasing an insurance policy to protect itself against the risk of loss of the software resource from the supplier, thereby avoiding escrow altogether. While there may not be an abundance of commercial insurance policies available to protect against loss

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12. *See* Anthes, *supra* note 6.

> Tom Morehouse, president of escrow company SourceFile in Oakland, Calif., says an independent audit showed that 80% of all the escrowed software he was getting had defects that rendered it unusable. When SourceFile began warning vendors in advance that it would check the contents of their deposits, that rate fell to 12%.

Id. Additionally, Anthes illustrates source code failures due to insufficient vendor deposits by recounting the disappointing experience of Radisson Hotels Worldwide: "[I]t turned out, the software that had been placed in escrow couldn't have been used to book guests at Radisson's 500 hotels in any case. 'As soon as we got suspicious, we quickly called for an audit and found out there were many pieces of code and documentation missing.'" *Id.* (quoting Scott Heintzeman, Vice President of knowledge technologies at Carlson Hospitality Group, Inc.).

13. As an example of security measures offered by source code escrow agents, the "Perpetual Storage Vault" advertised by EscrowTech International, Inc., is "located deep within the Rocky Mountains and combines the natural security of solid granite with advanced man-made storage and security technology" which includes a 24-hour armed security force, 24-hour electronic surveillance, its own independent power source, fire retardant construction, ionization detectors, and halon extinguishers. EscrowTech International, Inc., *Perpetual Storage Vault, at* http://www.escrowtech.com/vault.htm. Similarly, SourceFile LLC stores its "source code in a secure, state-of-the-art vault located 70 feet underground in the hills near Silicon Valley, specifically designed for media." Grossman, *supra* note 3. Another escrow agent describes comparably extravagant security measures. DSI Technology Escrow Services, Inc. offers an example of the stringent security measures that may be adopted by escrow agents:

> The sealed package is then placed in a heavy-steel, locked container identified by numbers only . . . The office, as well as the vault room, is secured against fire, water and unlawful entry. The system is monitored by an alarm company, which calls DSI personnel and local police if an alarm is tripped. Additionally, the vault room door has two separate key-access pads. Only five individuals have codes to the vault room. . . . The name of the vault company is kept confidential.

DSI Technology Escrow Services, Inc., *Resources—For Vendors; DSI Deposit Material Handling Procedures, at* http://www.dsiescrow.com/resource/deposit.html. Less extreme security measures offered by escrow agents may simply involve use of safe deposit boxes maintained by the escrow agent in the vault of a local bank. *See* Lincoln-Parry Associates Inc., *Single User Plan, at* http://www.softescrow.com/us_sup_info.html.

of a software *supplier* (as opposed to the software itself), presumably such risks would be insurable through larger insurance underwriters either in the United States or abroad.

E. The Move to "Open Source" Applications

It is possible that the changing nature of the software industry will eliminate the need for source code escrow agents. Elimination of source code escrow agents may result from the present movement in the software industry to utilize open source software systems, such as operating systems like Linux. In open source systems, software programmers make the program source code freely available to all users, subject to liberal licensing terms. Open source code is typically licensed under a General Public License (GPL) which permits people to distribute the code, but also requires free distribution of any alterations made thereto.[14] Though open source software and its code is given away for free, frequently via download from the Internet, developers generate profits by selling bonus applications, manuals, technical support, and program modification and custom-tailoring services.[15] Though it seems counterintuitive to posit that software developers are able to produce significant revenues by giving their products away, recent Linux sales grew over $70 million in a single year.[16] The impact of open source programming on the software world is evident from the reactions of software industry leaders, such as Microsoft, which perceives open source code as a genuine threat to its products, and Hewlett Packard Company, which recently announced plans to support Linux systems with its own products.[17] Though the future of open source software remains uncertain, it appears to be a general trend in the industry and could sound the death knell to the source code escrow agency industry as source code escrow services would no longer serve any purpose.

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14. *See* Malcolm Maclachlan, *Open Source Opens Legal Issues*, Planet IT, *at* http://www.planetit.com/techcenters/docs/linux/news/TWB19990812S0008; Daniel K. Frazier, *Linux and Open Source Software: Changing the Computer Industry* (July 19, 1999) (unpublished class project, New Mexico Institute of Mining and Technology, on file with the Marquette University Intellectual Property Law Review), *at* http://www.nmt.edu/~dannf/eng341/report.html. Slightly more restrictive forms of open source product licenses include the BSD license and the Mozilla Public License, which grant broad rights to software subject to certain conditions. *See* Mark Grossman, *Cyber Rules Changing Legal Landscape*, LEGAL TIMES, (Aug. 9, 1999), *available at* http://www.lawnewsnet.com/stories/A4214-1999Aug6.html.

15. *See* Frazier, *supra* note 14.

16. *See id.*

17. *See* Mary Jo Foley, *Who's Afraid of Big, Bad Linux?*, MSNBC.com, (Oct. 2, 1999), *at* http://www.msnbc.com/news/201760.asp?cp1=1; Jeff Partyka, *HP to Announce Linux Support Plan*, IDG News Service, (Feb. 25, 1999), *available at* http://www.linuxworld.com/linuxworld/lw-1999-02/lw-02-hp.html.

F. Industry Standardization Concerns

The source code escrow industry has been criticized for lack of standardization because source code escrow agencies provide inconsistent services to customers in the information and communications technology industries. A cursory review of escrow contracts reveals a broad range of terms among various software escrow agencies. Differences are particularly evident with respect to confidentiality and indemnification of the escrow agent. Additionally, escrow agency services have been accused of being unsuitable for international use—a glaring shortcoming in an increasingly globalized software industry.[18]

G. Adequacy of Intellectual Property Protection Under U.S. Bankruptcy Law

Source code escrow has been touted as essential to protect a software purchaser against the potential bankruptcy of a software vendor. With respect to the risk of bankruptcy, many of the benefits offered by source code escrow agents are obviated by the protections available under the United States Bankruptcy Code (USBC). In 1988, President Ronald Reagan enacted the Intellectual Property Bankruptcy Protection Act of 1987.[19] The Act provides a way for a computer software owner to gain access to the source code upon a vendor declaring bankruptcy regardless of any objections by the bankruptcy trustees. Access to the source code is provided so long as the license and service agreements between the vendor and purchaser impose continuing obligations on the vendor (i.e., a not yet completed performance obligation—an "executory contract"), and explicitly requires the vendor to turn the source code over to the purchaser in the event of default.[20] Though the USBC does

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18. *See, e.g.*, EUROPEAN EDUCATION PARTNERSHIP, *Source Code Escrow—Standardisation* [sic] *Issues*, *at* http://www.eep-edu.org/223.htm.

19. *See* LUCASH, GESMER & UPDEGROVE LLP, *Amendment to Bankruptcy Act Reduces Licensees's* [sic] *Risks in Technology License Arrangements* (Jan. 1989), *at* http://www.lgu.com/pubs/con35.htm.

20. *See* RUDER, WARE & MICHLER, *supra* note 7. Specifically, the USBC, 11 U.S.C. § 365(n) (1994) provides:

> (1) If the trustee rejects an executory contract under which the debtor is a licensor of a right to intellectual property, the licensee under such contract may elect—
>
> ....
>
> (B) to retain its rights (including a right to enforce any exclusivity provision of such contract, but excluding any other right under applicable nonbankruptcy law to specific performance of such contract) under such contract and under any agreement supplementary to such contract, to such intellectual property (including any embodiment of such intellectual property to the extent protected by applicable nonbankruptcy law), as such rights existed immediately before the case commenced, for—
>
> (i) the duration of such contract; and

not offer customized services (e.g., technical verification services), that are offered by some escrow agencies and does not protect a software purchaser or provide for a release of the source code upon a vendor's default for a reason *other than* the vendor's bankruptcy, such limited protection may be adequate for many software consumers. For protection under the USBC to be obtained, a software purchaser should ensure that licensing documents clearly constitute an executory contract and expressly provide for a release by the trustees of the software's source code in the event the software vendor files for bankruptcy. The software purchaser should also ensure that relevant licensing documentation is retained so that the purchaser may assert contractual rights pursuant to sections 365(n)(1)(B) and (n)(3) of the USBC.

H. Recalcitrant Vendor Risk

If an escrow agreement requires a vendor's consent for release and the agreement is not otherwise under the protection of the USBC, the purchaser of software with escrowed source code may be at the mercy of a "recalcitrant vendor."[21] Typically, an escrow agreement will contain a procedure for release agreed to by the parties at the onset of the agreement. The procedure

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(ii) any period for which such contract may be extended by the licensee as of right under applicable nonbankruptcy law.

. . . .

(3) If the licensee elects to retain its rights, as described in paragraph (1)(B) of this subsection, then on the written request of the licensee the trustee shall—

(A) to the extent provided in such contract, or any agreement supplementary to such contract, provide to the licensee any intellectual property (including such embodiment) held by the trustee; and

(B) not interfere with the rights of the licensee as provided in such contract, or any agreement supplementary to such contract, to such intellectual property (including such embodiment) including any right to obtain such intellectual property (or such embodiment) from another entity.

The Congressional reports enacting these provisions make clear that such protections were contemplated to extend to the bargained-for release of source code materials.

New subsection 365(n)(3) applies if the licensee elects to retain its rights after rejection. If the licensee retains its rights and requests the trustee in writing to do so, the trustee must provide the licensee with any intellectual property, including such embodiment, that the contract itself, or any supplemental agreement to the contract, provides for the licensee to have; the trustee also cannot interfere with the rights of the licensee to the intellectual property, including such embodiment. If the rights of the licensee include a right to obtain the intellectual property from another entity, the trustee cannot interfere with the right as well.

H.R. REP. NO. 100-1012 (1988). "Among the rights retained by the licensee electing under new Section 365(n)(1)(B) is the right to any embodiment of the intellectual property to which the parties' contracts entitle the licensee . . . . Other examples of *embodiments include . . . computer program source codes*." S. REP. NO. 100-505 (1988) (emphasis added).

21. Anthes, *supra* note 6.

for release may require the escrow agent to attempt to confirm the escrow beneficiary's claim that the software vendor is in default, bankruptcy, or other failure. In addition, the escrow agent may be required to offer the software vendor the opportunity to either assent or object to the source code release. Ultimately, the software vendor may choose to litigate whether an event of release has occurred, thereby preventing the escrow agent from releasing the deposited source code.[22] The escrow agent may insist on such provisions to avoid being sued by a software vendor for an inadvertent or premature release of the source code.

If a software vendor decides to be obstinate about the release of source code, the safeguards implemented by the escrow agent could provide a software vendor with a powerful tool to wreak havoc upon the software purchaser by delaying the release of source code and costing the purchaser valuable time and money.[23] Several approaches have been suggested to deal with a recalcitrant vendor. "[U]sers should try to include 'demand release' clauses in their escrow agreements. In the version most favorable to users, the user simply notifies the escrow agent that cause for release exists, and the release is made within three days—with or without the vendor's agreement."[24] Alternatively, "both users and vendors may benefit from a contract that provides for release on demand but requires the user to post a substantial bond when the release is made. The money is held by the escrow agent and may be used to satisfy damage claims by the vendor . . . ."[25]

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22. *See, e.g.*, EscrowTech International, Inc., *Software Escrow Services*, *at* http://www.escrowtech.com/escrow.htm. EscrowTech also offers a mandatory release option, but only if the vendor agrees to place this option into the agreement.

23. "[A] huge stumbling block may arise when contracts require that the vendor agree to the release. If it doesn't agree, the user company could face months or years in court while its mission-critical application falls into disrepair." Anthes, *supra* note 6.

24. *Id.*

25. *Id. See also* Freibrun, *supra* note 3. Amoco Corp. is a source code escrow beneficiary success story touted by one escrow agency. In Amoco's case, its software vendor was taken over by a foreign entity and Amoco was able to secure release from escrow of the needed source code within a matter of weeks, due to its sufficiently protective escrow agreement.

> Amoco requested that two main points be included in its escrow contract, which Wood [an Amoco attorney and senior analyst] says have now become standard in [Amoco's] future escrow agreements. "First, we added a 'poison pill' clause that basically says if they get taken over by a vendor we don't care to do business with, we have the option to acquire the source code from the escrow agent and maintain the product ourselves. Second, we added the 'Amoco decides' clause, which says we decide when a release condition (such as bankruptcy) has occurred and that the source code will be released. If the vendor thinks a decision to release is unreasonable, we agree to arbitrate or litigate the issue of damages we cause. But, initially, we get the source code because we'll need it fast."

DSI Technology Escrow Services, Inc., *Resources—For Licensees: Case in Point #3; Please Release Me*, *at* http://www.dsiescrow.com/resource/cip3.html. However, it is not clear whether the vendor

A more egregious form of recalcitrant vendor risk occurs when an unscrupulous vendor deposits unusable or incomplete code with the escrow agent. Upon release of the source code, the purchaser may learn that they are without the necessary code or documentation.[26]

I. Escrow Agent Viability

One commentator has noted that "[j]ust as important to a licensee as the long term viability of a licensor is the long term viability of an escrow agent[.]"[27] The benefit achieved by depositing source code into escrow may not prove to be of much value to a purported beneficiary if the escrow agent itself becomes insolvent, bankrupt, or otherwise ceases to exist. This concern looms especially large when dealing with a relatively unknown agent in another jurisdiction. Escrow agent companies are typically small, private ventures with limited public information on file with either a state or the Securities and Exchange Commission. As such, the only information available about an escrow agent may be that found through advertising in a trade journal or through the Internet. In addition, promotional materials generally provide very limited, if any, information to demonstrate creditworthiness. To that end, software purchasers entering into a source code escrow agency agreement would be well advised to insist on an opportunity to conduct a greater degree of due diligence than typically offered as a matter of course by escrow agents.

II. CONFIDENTIALITY

Presumably, if source code was placed in escrow by the software purchaser, the software developer considered the source code to be of such value to preclude the source code from being made directly available to software purchasers. The value of the escrow to the software developer will necessitate the developer insisting that the escrow agent maintain a high degree of confidentiality and care. Yet some of the agreements entered into

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and agent would be as receptive to such terms requested by a software purchaser without the vast economic clout of an Amoco, or whether the *vendor* would share Amoco's view that this was an optimal contract term. *See also* Anthes, *supra* note 6.

26. *See id.* "'The last thing you want to find is that the tape you're pulling out of the deposit isn't the software but is a copy of the Rolling Stones.'" *Id.* (quoting David Weidenfeld, chief technology counsel of McDonald's Corp.). Anthes also notes that even if the code is accurately deposited, it may not be useful without adequate documentation: "'If you don't have good documentation, the software might be worthless to you . . . . How is the software structured? What is the installation process? How is data configured? Keeping all that documentation current is a nightmare—it's almost a miracle for that to be accomplished.'" *Id.* (quoting Scott Heintzeman, Vice President of knowledge technologies at Carlson Hospitality Group, Inc.).

27. Barnett, *supra* note 9.

by sophisticated organizations do not obligate the escrow agent to affirmatively maintain the confidentiality of a developer's source code, other than scant references in the recital portion of the agreement that the code is "confidential."[28] Though some escrow agreements provide explicit statements of confidentiality, many provide neither an affirmative obligation to instruct or supervise employees to maintain confidentiality nor explicitly provide that the escrow agent will indemnify the software developer for misuse or misappropriation of the source code.[29] The need for an explicit confidentiality clause is especially important in cases where a source code escrow agent provides technical verification services[30] of the source code for the benefit of the beneficiary. A confidentiality clause is also imperative if the escrow agreement permits the escrow agent to make an unlimited number of copies of the source code.[31] The need for increased warranties and duties of confidentiality is especially important in light of the limited amount of liability assumed by the source code escrow agent.

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28. For example, a typical escrow agreement provides only a mere reference in its recitals that the confidentiality of the depositor's source code will be maintained. *See, e.g.*, SourceFile LLC, *SourceFlex Software Source Code Escrow Agreement*, *at* http://www.sourcefile.com/contracts/sflex.html [hereinafter SourceFile Agreement]. This is exacerbated by the significant indemnification and limitation of liability provisions also provided for in the SourceFile Agreement. *See id.* §§ 11, 12.

29. Three source code escrow agency services with a prominent Internet presence have made their model source code escrow agency agreements available to prospective clients free on the web; DSI Technology Escrow Services, Inc. [hereinafter DSI Agreement], *at* http://www.dsiescrow.com/services/safe.html; SourceFile LLC [hereinafter SourceFile Agreement], *at* http://www.dsiescrow.com/services/index.html; and Fort Knox Escrow Services, Inc. [hereinafter Fort Knox Agreement], *at* http://www.fortknoxescrow.com/services_agreements.htm. For purposes of this discussion, it is assumed that these agreements are typical and illustrative of the escrow agency industry standards. The DSI Agreement provides the most elaborate statement of confidentiality of the agreements reviewed, but even this agreement does not explicitly impose an obligation on DSI to instruct and supervise its employees and contractors with respect to maintaining confidentiality.

> DSI shall maintain the Deposit Materials in a secure, environmentally safe, locked facility which is accessible only to authorized representatives of DSI. DSI shall have the obligation to reasonably protect the confidentiality of the Deposit Materials. Except as provided in this Agreement, DSI shall not disclose the content of this Agreement to any third party and shall not disclose, transfer, make available, or use the Deposit Materials.

DSI Agreement, *supra*, art. 3.1. The SourceFile Agreement only provides a confidentiality statement in the recitals, not in the text. *See* SourceFile Agreement, *supra*, § 2. The Fort Knox Agreement also provides only a cursory statement of confidentiality, but unlike the SourceFile Agreement, the provision in the Fort Knox Agreement has the benefit of being in the body of the Agreement as opposed to merely in the recitals. "Fort Knox will hold and release the Deposit Materials only in accordance with the terms and conditions hereof, and will maintain the confidentiality of the Deposit Materials." Fort Knox Agreement, *supra*, § 12.

30. *See, e.g.*, SourceFile Agreement, *supra* note 29, § 7.

31. *See* Fort Knox Agreement, *supra* note 29, § 2. *See also* SourceFile Agreement, *supra* note 29, § 10; DSI Agreement, *supra* note 29, art. 4.2.

III. LIMITED LIABILITY AND INDEMNITY

Most source code escrow agreements provide the escrow agent with some form of indemnification by the software vendor. Indemnification of the escrow agent is necessary when the role of the escrow agent is limited to warehousing the deposit made by the software vendor without performing any verification services. Occasionally, source code escrow agents demand an unreasonable amount of indemnification. For example, one agent's escrow agreement provides that the parties (vendor and purchaser) must indemnify the escrow agent from the agent's own negligence.[32] It is not clear, given the limited actions required of the agent (in many cases nothing more than a matter of storing the software untouched and unpirated in a secure container until a release date), why the escrow agent should not assume the risk of its own acts of negligence.[33] Another escrow agreement provides for a relatively short (one year) limitation period during which a party is permitted to bring an action or claim.[34]

In addition, a software escrow agreement may attempt to insulate the escrow agent from special or consequential damages.[35] As the rationale of source code escrow is to protect a software purchaser from risks incident to the loss of a functioning version of the software in the event of the demise of its supplier, it is clear that the bulk of the damages resulting from a negligent or intentional breach of the escrow agreement would likely be consequential damages that should be borne by the negligent party. This concern is even more important given the fact that few source code escrow agreements require the escrow agent to maintain an insurance policy or to post a bond to secure its obligations. In addition, there is neither a universal standard of care for protection provided by source code escrow services nor a certifying body for escrow agents that mandates qualifications and governs conduct.

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32. The SourceFile Agreement indicates that the agent is to be indemnified jointly by the parties "from any and all claims, demands, liability, costs and expenses, including attorney's fees," but states that the indemnification does not extend to SourceFile's "actual fraud, willful or reckless misconduct." SourceFile Agreement, *supra* note 29, § 12. This language suggests that indemnification *does* extend to negligent or even grossly negligent conduct by SourceFile. Another agent's agreement broadly indemnifies the escrow agent "from and against any and all claims, actions, damages, suits, liabilities, obligations, costs, fees, charges and any other expenses whatsoever . . . ." without referencing a standard of care. Fort Knox Agreement, *supra* note 29, § 5.

33. *But cf.* Robert K. Peddycord, Resources: *Case in Point #8; Negotiating an Escrow Agreement*, DSI Technology Escrow Service, Inc., *at* http://www.dsiescrow.com/resource/negot.html. Peddycord notes that depositors should not concern themselves with the indemnification of an escrow agent as "[c]ompared to the overall value of most transactions from which technology escrows arise, escrow fees are relatively nominal. This relative valuation is important in determining the risks the escrow agent should assume." *Id.*

34. *See* SourceFile Agreement, *supra* note 29, § 11.

35. *See id.* § 12.

In many non-software arenas, escrow agents are likely to be members of government regulated and certified industries. For example, an attorney will typically hold malpractice insurance and is subject to state ethical rules and canons, for which an attorney can be disciplined by the state if such rules are violated. An attorney negligent in handling a deposit into escrow for a client would expect to be liable for their negligence.[36] A violation of professional rules of conduct would be reviewed by that jurisdiction's disciplinary board.[37] But who regulates or disciplines source code escrow agents when they act negligently? There appears to be no such analog to professional rules of conduct in the source code escrow agency field.[38]

Despite their deficiencies, source code escrow agencies may be a more logical choice to safeguard source code than either attorneys or banks because escrow agents generally have more software programming expertise, are better able to perform verification services, and can confirm that they are holding all the necessary code and documentation that would be required by a trained computer programmer. Furthermore, source code escrow agents maintain storage facilities that are specifically tailored to hold computer storage media.[39] However, escrow agents are often relative unknowns to their clients and beneficiaries because they limit their advertising to trade journals or the Internet and provide their worldwide services from a remote location. Unless a source code escrow agent is a member of a regulated profession, an agent does not require any specific credentials. Failing to belong to a regulated profession indicates that the agent will typically not be required to post any bond or carry any amount of insurance.[40] Although source code

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36. *See, e.g.*, MASS. SUP. JUD. CT. R. 3:07 (2000), MASS. RULES OF PROF'L. CONDUCT R. 1.15, entitled "Safekeeping Property" (mandating that property placed in the custody of a lawyer in the course of his representation of a client shall be kept separate from the property of the lawyer, appropriately safeguarded, and the lawyer shall maintain complete records as to the receipt, maintenance and disposition of such property, and shall provide accountings of the property upon request). *See also generally*, Mark S. Ochs, *Ethical Matters: Ethical Obligations of Attorneys Handling Escrow Funds*, NYSBA PERSPECTIVE 12 (Spring 2000). Comment 4 to Rule 1.15 notes:

> The obligations of a lawyer under this Rule are independent of those arising from activity other than rendering legal services. For example, a lawyer who serves as an escrow agent is governed by the applicable law relating to fiduciaries even though the lawyer does not render legal services in the transaction.

MASS. RULES OF PROF'L. CONDUCT R. 1.15, *supra*, cmt. 4.

37. *See,* MASS. RULES OF PROF'L. CONDUCT, *supra* note 36, at 8.5 (Disciplinary Authority).

38. "Unless general banking business is being transacted, an escrow agent who holds funds on deposit in a bank need not be licensed, and the escrow agreement to which he is a party is not invalid or unenforceable because no license has been obtained." 30A C.J.S. *Escrows* § 8 (1992).

39. *See* Grossman, *supra* note 3. *See also* SourceFile, LLC, *Why Attorneys Should Not Be Escrow Agents!, at* http://www.sourcefile.com/pressroom/sf_article_1.html (citing additional conflict of interest concerns).

40. The agent remains, however, subject to whatever basic duties are imposed on a fiduciary

escrow agents have not been found to operate other than in the professional manner they advertise,[41] it remains unclear why the software development industry has not imposed universal standards of care and insurance and/or bonding obligations on escrow agents.

IV. CONCLUSION

Given that the value of escrowing source code is dubious for the reasons described above, and considering the inadequate confidentiality protections and overly broad indemnification terms in many source code escrow agreements, it is a wonder that such services are so widely used. Clearly the source code escrow industry is tapping into the paranoia of software reliant companies, for whom software is a significant company expense, and who fear catastrophe. But even assuming the need for an escrow service could be justified, it is still unclear why source code escrow agents should not universally be required to post bonds, carry an adequate amount of insurance, and assume broad indemnification for liabilities due to their own (and their employees', agents', and contractors') negligence. Additionally, an escrow agent's trade journal or Internet advertisement and promotional material tend to offer little information and few assurances with respect to the company. Some form of certification, permit, or license from a third party entity or government agency would be helpful to assist vendors in separating the reputable escrow agencies from the more questionable, fly-by-night operations. Vendors and purchasers who opt to use escrow agency services should be aware of the questionable utility of source code escrow services, and should insist upon a level of care and protection greater than that which is seen in many services' form agreements.

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in the applicable jurisdiction to the extent that such obligations are not contractually eroded. However, such duties may not rise to the level of care received from a licensed and regulated professional whose conduct is directly scrutinized and subject to discipline.

> It is a depositary's duty to exercise reasonable skill and ordinary diligence, and due care in his employment. In his fiduciary capacity, he must conduct the affairs with which he is entrusted with scrupulous honesty, skill, and diligence. He may not violate or pervert to his own advantage or to the detriment of either principal the relationship of confidence existing.

30A C.J.S. *Escrows* § 10 (1992). However, it is the express intent of the indemnification provisions contained in escrow agreements to contractually emasculate the escrow agent's fiduciary duty liabilities.

41. In truth, with the mere 0.5% escrow release rate, it would be extraordinarily difficult to determine the extent of agency negligence or abuse.